

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed August 4, 2009. At the time of the Office Action, 1-20 were pending in this Application. Claims 1-20 were rejected. Claims 1, 3, 10, 11, and 13 have been amended. Applicant respectfully requests reconsideration and favorable action in this case.

Rejections under 35 U.S.C. § 112

Claims 1-20 were rejected by the Examiner under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner alleges that the limitation “enables micrometric deformations of the seat part when engaged in the needle seat” is not described in the specification. Applicant respectfully disagrees. The feature of enabling micrometric deformations of the seat part is described as a central object of the invention. For example, the Specification teaches:

- “The invention is based on the finding, that the cavity makes the seat part flexible and enables micrometric deformations of the seat part in the needle seat, which improve the sealing quality between the needle seat and the sealing area of the seat part very much.” (paragraph 0011),
- “micrometric deformations of the seat part 221 in the sealing area 222 are enabled if it contacts the needle seat 2132.” (paragraph 0034), and
- “By this measure the flexibility of the needle tip 229A is increased and micrometric tip deformations of the needle in the needle seat 2141 are enabled, which improves the sealing quality between the needle seat 2141 and the sealing area 229B of the needle 22.” (paragraph 0042)

Thus, Applicant submits that the limitation “enables micrometric deformations of the seat part when engaged in the needle seat” is explicitly described in the specification. Accordingly, Applicant requests that this rejection be withdrawn.

Claims 3-5 and 11-15 were rejected by the Examiner under 35 U.S.C. §112, second paragraph, as being indefinite. Applicant assumes that Examiner intended to reject Claims 13-15, not 11-15, and treat the rejection accordingly. The rejections are based on the

limitation “a filler part that is taken in the cavity” in Claim 3 and “a filler part that is arranged within the cavity” in Claim 13. Although Applicant does not agree that this language is indefinite, Applicant has amended Claims 3 and 13 to advance prosecution. Amended Claims 3 and 13 now recite “wherein the material of a suitable stiffness comprises a filler part.” Applicant submits that this language is not indefinite. Accordingly, Applicant requests that this rejection be withdrawn.

Rejections under 35 U.S.C. § 102

Claims 1-4, 6-8, 10-14, 16-18 and 20 stand rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,423,842 issued to James D. Palma (“*Palma*”).

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, “the identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co. Ltd.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

Applicant respectfully traverses and submits that *Palma* does not teach all of the elements of Applicant’s claims. For example, amended Claim 1 recites “wherein the cavity is either empty or filled with a material of a stiffness less than a stiffness of the seat part in order to achieve a desired flexibility of the seat part.” This limitation is supported, for example, at paragraph 0015 of the Specification, which discloses using a *plastic* filler part in order to achieve a desired flexibility of the seat part, and at paragraph 0037 of the Specification, which teaches: “In this case the material of the filler part 226 needs to be of suitable stiffness in order to achieve the desired flexibility of the seat part 221 of the needle 22. If the filler part has a low enough stiffness it may also fill the whole blind hole 223.”

Palma does not teach a cavity that is “either empty or filled with a material of a stiffness less than a stiffness of the seat part in order to achieve a desired flexibility of the seat part.” Instead, *Palma* teaches a guide post 90 inserted into a blind bored guide wall 91, the

guide post 90 acting to guide axial reciprocal movement of valve member 8'. (col. 8, lines 47-54). *Palma* provides no teaching or suggestion that the guide post 90 is made from a material less stiff than valve 73'.

For at least these reasons, amended Claim 1 is allowable over *Palma*. Amended independent Claims 10 and 11 are also allowable over *Palma* for the same reasons. Accordingly, Applicant respectfully requests reconsideration and allowance of amended Claims 1, 10, and 11, as well as all claims that depend therefrom.

Rejections under 35 U.S.C. §103

Dependent Claims 5, 9, 15 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Palma*. Applicant submits that dependent Claims 5, 9, 15 and 19 are allowable at least because they depend from independent Claims 1 and 11, shown above to be allowable. Thus, Applicant respectfully requests allowance of Claims 5, 9, 15 and 19.

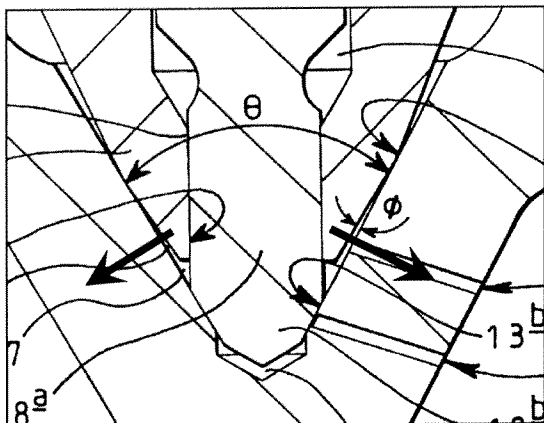
Claims 1, 3-4, 6-7, 10-11, 13-14, 16-17 and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,338,445 issued to Malcolm David Dick Lambert et al. ("*Lambert*") in view of U.S. Patent No 6,631,854 issued to Hubert Stier ("*Stier*").

In order to establish a prima facie case of obviousness, the references cited by the Examiner must disclose all claimed limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Even if each limitation is disclosed in a combination of references, however, a claim composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR Int'l. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). Rather, the Examiner must identify an apparent reason to combine the known elements in the fashion claimed. *Id.* "Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *Id.*, citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Finally, the reason must be free of the distortion caused by hindsight bias and may not rely on ex post reasoning. *KSR*, 127 S.Ct. at 1742. In addition, evidence that such a combination

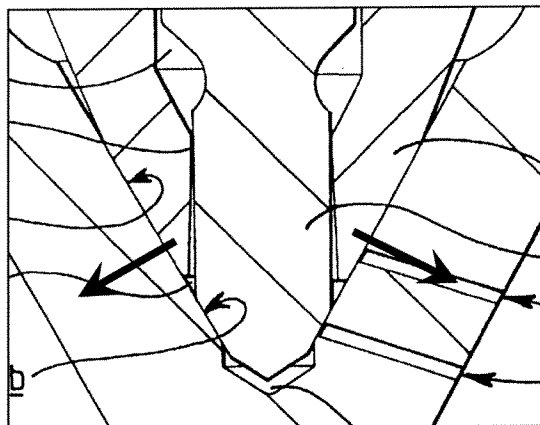
was uniquely challenging or difficult tends to show that a claim was not obvious. *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc. and Mattel, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007), citing *KSR*, 127 S.Ct. at 1741.

Applicant respectfully submits that the proposed *Lambert-Stier* combination fails to teach all limitations of Applicant's amended claims. For example, *Lambert* and *Stier* fail to teach "wherein the cavity makes the seat part flexible in the sealing area such that the ends of the seat part around the cavity flex inwardly due to micrometric deformations of the seat part when engaged in the needle seat," as recited in amended Claim 1. *Lambert* teaches a valve needle having an outer valve needle 12 and an inner valve needle 18. As the valve needle is received within a seating 13, the ends of the outer valve needle 12 are deformed outwardly, as illustrated in the progression from Figure 6 to Figure 7 shown below. (Col. 9, lines 34-63). The arrows have been added to indicate the direction in which the ends of the outer valve needle 12 deform as the needle is received into the seating.

From *Lambert*, Fig. 6:



From *Lambert*, Fig. 7:



Thus, *Lambert* actually teaches away from "wherein the cavity makes the seat part flexible in the sealing area such that the ends of the seat part around the cavity flex inwardly due to micrometric deformations of the seat part when engaged in the needle seat," as recited in amended Claim 1. *Stier* also does not teach this limitation. In fact, the Examiner cited to

Stier only for the limitation of a fuel injector valve having a cartridge with a seat plate. (Office Action, page 6).

For at least these reasons, amended Claim 1 is allowable over the proposed *Lambert-Stier* combination. Amended independent Claims 10 and 11 are also allowable over the proposed *Lambert-Stier* combination for the same reasons. Accordingly, Applicant respectfully requests reconsideration and allowance of amended Claims 1, 10, and 11, as well as all claims that depend therefrom.

CONCLUSION

Applicant has made an earnest effort to place this case in condition for allowance in light of the remarks set forth above. Applicant respectfully requests reconsideration of the pending claims.

Applicant believes there are no other fees due at this time, however, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 50-4871 of King & Spalding L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicant's attorney at 512-457-2030.

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